Department of Health & Physical Education

Syllabus of

Bachelor of Studies-Health & Physical Education
(B.Sc(HONS) / BS-HPED)

4 Years (8 Semester) Program

From 2012 & Onwards

University of Karachi
Objective:
This course is designed to acquaint students with the objective to define basic concepts of physical education and its relation to Health Education, and provide preliminary awareness about physical, mental and social developments; interpretation of biological, psychological effects on physical activities, and understanding of office management, budget and training care of equipments.

1. INTRODUCTION OF PHYSICAL EDUCATION
   - Definition & Historical Background of Physical Education
   - Nature and Scope of Physical Education
   - Role of Physical Education and Sports in Society

2. HISTORY OF PHYSICAL EDUCATION
   - Major historical aspects of physical education in ancient oriented nations (Pakistan, China, India, Egypt).
   - Greek (Athens, Sparta, ancient and modern Olympics), during different eras
   - Various modern states including U.K., Germany, Denmark, Sweden, U.S.A & Russia

3. PHYSICAL EDUCATION AS DISCIPLINE
   - Physical Education, an Academic Discipline
   - Professional Ethics of Physical Education
   - Physical Education and Islam
   - Physical Education as a profession

4. OBJECTIVES OF PHYSICAL EDUCATION
   - Physical Development
   - Mental Development
   - Emotional Development
   - Neuro-Muscular Co-ordination
   - Social Development

5. SCIENTIFIC FOUNDATION OF PHYSICAL EDUCATION
   - Biological Interpretation of Physical Education
   - Psychological Interpretation of Physical Education
   - Sociological Interpretation of Physical Education
Course No. HPED-311

Books Recommended:

Objective:
The outlines of this course have been drawn with the objective to provide basic knowledge of human anatomy and body parts such as head and neck, thorax, abdomen and pelvis, skeleton, bones tissues, joints and muscles to acquaint students with initial information about human body structure and functions.

1. INTRODUCTION OF ANATOMY AND PHYSIOLOGY
   - Terminologies used in Anatomy
   - Definitions and Branches of Anatomy and Physiology

2. CELL AND TISSUES
   - Structure & Characteristics of cell and Tissues

3. PARTS OF HUMAN STRUCTURE
   - Head and Neck
   - Trunk
   - Upper & Lower Limbs

4. OSTEOLOGY
   - Bone Tissue
   - General Classification of Bones

5. HUMAN SKELETON
   - Bones of skull
   - Bones of upper and lower limbs
   - Vertebral column

6. ARTHOLOGY (JOINTS)
   - General Classification of Joints
   - Formation of joints

7. MYOLOGY (MUSCLES) & CLASSICAL FUNCTION OF MUSCLES
   - Types of Muscles

8. TENDONS, LIGAMENTS, CARTILAGES
   - Structure
   - Functions

9. BRIEF INTRODUCTION OF VARIOUS SYSTEM:
   - Cardio vascular system (C.V.S)
   - Nervous system
   - Digestive system
   - Respiratory system
   - Urinary system
Course No. HPED-313

Practical:

Tutorial & Demonstration of:

- Human Skeleton
- Joints
- Muscles & tendons with marking
- Heart, Lungs, Brain, Spinal Cord,
- Functional Anatomy

Text Books:


Book Recommended:

SKILLS & TECHNIQUES OF SPORTS & GAMES (2+1)
Course No. HPED-315

BS-HPED (1st Year)
1st Semester

Objective:
Origin & historical background, skill, technique, equipment, (Players and playing equipments), rules of the games, playing courts and fields, officials and their duties, penalties, rules of the conduct and recent developments relevant to the following games:

- Cricket, Table Tennis, Badminton, Boxing

Practical:

- Individual performance, coaching, judging/Officiating and program planning.

Books Recommended:

1. Dr. P. Modak Rules & Principles of Sports & Games, (2005) Khel Shitya Kendra New Delhi, India
2. Dr. Anil Sharma Sports Laws (With latest Rules & Management), (2004). Khel Shitya Kendra New Delhi, India
SPORTS SOCIOLOGY (3+0)
Course No. HPED-312

BS-HPED (1st Year)
2nd Semester

Objective:
This course is designed to provide extensive knowledge about the meaning, scope and relation with media, politics and religion and its impact on the society.

- Social Aspect of Sports.
- Life long participation in sport as leisure; the religion and sport.
- Introduction: Social scientific study of sport, sociological perspectives and sport.
- The nature of sport: definition, involvement, structure and indeterminacy of sport, intrinsic and extrinsic dimension.
- Sport and social values and cultural variations: sport as a reflection and transmitter of values, sport subculture and team culture, historical examples of cultural variations in sports, geographical aspects.
- Socialization into sports and sociological aspect of sport and management: initial and aversive socialization into sport, model of sport involvement, managerial concerns attitudinal ad behavioral concomitants of sports participation.
- Stratification in sport based on gender and race, sport within educational institutions;
- Collective violence and sport: aspects of sports that encourage violent behavior, different theories of collective violence, sports and mass media; The political economy of sports:
Course No. HPED-312

Books Recommended:

2. Peter Hastie Teaching Elementary Physical Education: Strategies for the classroom teacher, Pearson, 2006 Benjamin Cummings, New York,
7. Rachna Jain Sports Sociology, (2002). Kehl Sahitya Kendra, New Delhi,
Objective:
The basic purpose of offering this course is to provide basic knowledge of human physiology mainly relating basic physiology defining body tissues, bones, and joints, and joints: type of Muscles, blood, Nervous system and digestion of food as these elements are essential for Physical workouts.

1) INTRODUCTION TO HUMAN BODY:
   - levels and organization, cell biology, tissues and membranes, body systems, homeostasis and feedback, essentials of body chemistry, cell structure and function, cell division and metabolism;

REGULATORY SYSTEM:
2) THE NERVOUS SYSTEMS:
   - Structural & functional classification
   - Neurons,
   - Reflex action, motor and sensory nerve pathway:

3) THE ENDOCRINE SYSTEM:
   - Structure And Function Of Endocrine gland
   - Hormones and their characteristics

4) THE CARDIO-PULMONARY SYSTEM:
   - Structure & function of heart & vessels
   - Structure & function of respiratory tract
   - Composition and function of blood, blood groups,
   - The immune systems

5) THE DIGESTIVE SYSTEM:
   - Basic function of the digestive tract.

6) THE URINARY SYSTEM:
   - Anatomy and physiology of the Kidneys
   - mechanism of renal function,
   - regulation of body fluids,electrolytes,water balance

7) THE REPRODUCTIVE SYSTEM:
   - Structural & Function of Reproductive Organ
   - Organization, gonadal hormones their function in puberty.

8) MUSCLE PHYSIOLOGY:
   - Structural & functional classification of muscles
Course No. HPED-314

Practical:

1. Microscopy: slides of typical human cell and relevant tissues.
2. Hemocytometry.
3. Hemoglobinometry, clotting system and ABO blood groups
4. Heart sounds & B.P. measurement, (before, during and after exercise)(3 practical)
5. ECG: (before, during and after exercise). (3 practical)
6. Clinical testing of reflexes & cutaneous receptors.
7. Pulmonary function tests by lung volumes and capacities; (before, during and after exercise). (3 practical)
8. Urinomery and urine characteristics.

Books Recommended:

SKILLS & TECHNIQUES OF SPORTS & GAMES (2+1)
Course No. HPED-316

BS-HPED (1st Year)
2nd Semester

Objective:
Origin & historical background, skill, technique, equipment, (Players and playing equipments), rules of the games, playing courts and fields, officials and their duties, penalties, rules of the conduct and recent developments relevant to the following games:

- Hockey, Volley Ball, Swimming, Shooting ball

Practical:
- Individual performance, coaching, judging/Officiating and program planning,

Books Recommended:


Objective:
The outlines of this course has been designed to acquaint the students with management skills of office management knowledge of instructional and training programs, fabrics of human resources and copying with stress and techniques to manage burn out deficiency.

1. THE MANAGEMENT PROCESS
   - What is Management?
   - What is a Manager?
   - Why pursue a Management career
   - The importance of Management
   - Management in transition
   - Managerial framework, functions and tasks

2. OFFICE MANAGEMENT
   - Office Management Tasks,
   - Importance of Office Management
   - Relationship of Management to Office Staff Members
   - Office and work Station Space
   - Office Personnel
   - Equipment and Supplies
   - Records and Reports
   - Financial Management, budgeting, Purchasing

3. PHYSICAL EDUCATION INSTRUCTIONAL PROGRAMS
   - Management guidelines for school and college program
   - Management factors and matters
   - Adapted / Developmental Physical Education Program
   - Selected Management Problems
   - Criteria for Evaluating Physical Education instructional Program

4. MANAGEMENT AND THE ATHLETIC TRAINING PROGRAM
   - Need for certified athletic trainers
   - Sports Medicine Management team
   - Team Physician
   - Athletic Training Room
   - Management Responsibility in Athletic Training
   - Safety in Athletic Program

5. HUMAN RESOURCE MANAGEMENT AND SUPERVISION
   - Principles, Policies of Human resource and supervisory Management
   - Human Resource Recruitment and selection
   - Special qualification for Physical Education and coaches
   - Risk Management
   - Communication and Motivation
   - Management by Objective
6. **STRESS AND BURNOUT**
   - What is Stress & Burnout?
   - Physical Education Teachers, Coaches, Administrators Burnout?
   - Causes of Physical Education Teachers Coaches, & Administrators Burnout
   - Coping Techniques of Physical Education Teachers, Coaches, and Administrators

7. **PRINCIPAL & GUIDELINES OF PUBLIC RELATIONS**
   - Electronic and Print media,
   - Marking & Promoting in sports management & Physical Education

**Books Recommended:**

HUMAN GROWTH AND DEVELOPMENT (3+0)
Course No. HPED-413

BS-HPED (2nd Year)
1st Semester

Objective:
The outline of this course is drawn with the objective to provide initial knowledge of human growth and development to the students on the subject relating to motor learning, personality development.

DEVELOPMENT OVER THE LIFE-SPAN

1. INFANCY & CHILDHOOD:
   - Developmental Issues
   - Genes or Experience Continuity or Discontinuity?
   - Fetal Development
   - Physical, Cognitive, Social Development of Infancy & Childhood

2. ADOLESCENCE & ADULTHOOD:
   - Physical, Cognitive, Social Development of Adolescence, Adulthood & Later Life
   - Reflections the Developmental Issues
     Genes and Experience, Continuity and Discontinuity

3. GENDER:
   - Gender Differences
     How Do Males and Females Differ?
     Gender Differences across the Life-Span
   - Why Do the Genders Differ?
     Biological Roots, Social Roots, Nature Nurture Interaction
Course No. HPED-413

Books Recommended:

6. Kathleen Stassen Berger Developing Person through the Life Span, Edition/Copyright: 6TH 05, Year Published: (2005)
INTRODUCTION TO KINESIOLOGY (2+1)
Course No. HPED- 415

BS-HPED (2nd Year)
1st Semester

Objective:
The outlines of this course has been drawn with the objective to provide basic knowledge of movement of human body parts such as head and neck, thorax, Abdomen and Pelvis, Skeleton, Bones Tissues, Joints and Muscles to acquaint students with initial information about kinesiology.

1. INTRODUCTION
   ▪ Definition of Kinesiology, Definition of Rehabilitation, Development of the work
   ▪ Historical Survey, Component Parts of Rehabilitation, Professional Etiquette
   ▪ Maintenance of Records.

2. MUSCLE
   ▪ Composition of Muscle, Mechanism of Contraction,
   ▪ Classification of Muscles According to Architecture Shape and Group action
   ▪ Muscle Work and its Types

3. MOVEMENTS
   ▪ Definition of Movement, Axis and Planes of Movement
   ▪ Normal Movement with Anatomical and Physiological Application
   ▪ Classification of Movements.
   ▪ Techniques, Effects and uses of moment

4. BIOMECHANICS (JOINT STRUCTURE AND FUNCTION
   ▪ Structure and function of joints, Types of Joints, Joint Cavity
   ▪ Difference between Ligaments and Tendons
   ▪ Role of joint structures in joint stability and Mobility

5. POSITIONS
   ▪ Fundamental Positions, Derived Positions, Effects and Uses
   ▪ Kinesiological Application of Starting and Derived Positions

6. FORCE
   ▪ Definition of Force, Movement of Force, Composition of Forces
   ▪ Resolution of Forces, Parallelogram of Forces.

7. PRINCIPLES OF STABILITY AND GRAVITY
   ▪ Base Support, Centre of Gravity, line of Gravity
   ▪ Effect of Gravity, Reflexes and Receptors
   ▪ Equilibrium and its types, Factors on which stability is based.

8. LEVERS:
   ▪ Classification of Levers, Principles of Lever, Orders of Lever,
   ▪ Application on Body Mechanics
Course No. HPED- 415

Practical:

- Axis and planes of movements,
- Fundamentals starting and derived positions
- Joint structures and functions, classification of muscle fibers
- Centre of Gravity
- Line of Gravity

Books Recommended:

2. HAY Biomechanics of sports and technique (2009).
Objective:
Origin & historical background, skill, technique, equipment, (Players and playing equipments), rules of the games, playing courts and fields, officials and their duties, penalties, rules of the conduct and recent developments relevant to the following games:

- Football, Squash, Tennis, Weight Training

Practical:
- Individual performance, coaching, judging/Officiating and program planning

Books Recommended:

SPORTS PSYCHOLOGY (3+0)
Course No. HPED-412

BS-HPED (2nd Year)
2nd Semester

Objective:
The outlines of this course is designed to acquaint students with psychological issues relating to Arousal, Motivation, Personality traits, self esteem and building self confidence to attain derived goals in sports competitions.

1. INTRODUCTION:
   - Definition of Psychology
   - Importance of Psychology in Physical Education
   - Definition and methods of Sports Psychology
   - Psychological Benefits from Physical activities

2. BASIC PSYCHOLOGICAL CONCEPTS:
   - Definition and theories of learning
   - Factors influencing learning (motivation and intelligence)
   - Motor learning, motor learning concepts, perceptual motor learning

3. MOTIVATION IN SPORTS AND EXERCISE:
   - Motivation and Self confidence in Sport
   - Goal Perspective Theory
   - Casual Attribution in Sport
   - Developing Intrinsic Motivation in Sport
   - Goal Setting in Sport
   - Youth Sport

4. AROUSAL, ATTENTION AND PERSONALITY OF ATHLETE:
   - Neurophysiology of Arousal
   - Attention and Concentration in Sport
   - Personality and the Athlete

5. SITUATIONAL FACTORS RELATED TO ANXIETY AND MOOD:
   - Mood state and Athletic performance
   - Anxiety, Arousal and Stress relationship

6. IMPROVE YOUR SELF CONFIDENCE:
   - Self esteem
   - Building and maintenance of confidence
   - Affect of beliefs
   - Stories of confidence

7. PSYCHOLOGICAL OBSTACLES IN THE CLAY OF PERFORMANCE:
   - Plateaus in performance
   - Slumps
   - Staleness
   - Mind Set
   - Rituals
   - Burn out
Course No. HPED-412

**Books Recommended:**

ENVIRONMENTAL SCIENCE (3+0)
Course No. HPED-414
BS-HPED (2nd Year)
2nd Semester

Objective:
This course is designed to bring awareness among the masses about the issues developed adversely on the life saving elements such as position of Air, Water, land and noise that has badly affected the health conditions of the rural and urban society and provide knowledge to address this alarming issue.

1. INTRODUCTION
   - Lithosphere, Biosphere, Hydrosphere

2. PRINCIPLES OF RESOURCE MANAGEMENT
   - Kind of course, pattern of resource depletion, resource economics, sustainable world

3. BIOLOGICAL RESOURCES
   - Biodiversity, Biodiversity losses, community and ecosystem degradation, species preservation programmed, species conservation, Wetlands, Biomes

4. HISTORICAL SOCIAL AND LEGAL ASPECTS OF THE CURRENT ENVIRONMENTAL CRISSES
   - Importance of environmental ethics and environment and development linkage. Global environmental conflicts.

5. ENVIRONMENTAL POLLUTION CONTROL IN:
   - Lithosphere, Biosphere, Hydrosphere

6. ENVIRONMENTAL AND ENVIRONMENTAL FACTORS ACTING ON HUMAN BODY:
   Chemical Factors:
   - Chemical Toxicology.
   - Mechanism of action of drug producing toxic effects in human body.
   - Carcinogenic agent.
   Biological Factors:
   - Infectious diseases.
   - Mechanism of bacterial, Viral and parasitic infections.
Course No. HPED-414

Books Recommended:

SCIENCE OF TRACK & FIELD (2+1)
Course No. HPED-416

BS-HPED (2nd Year)
2nd Semester

Objective:
This course on Science of Track & Field has been prepared to advance knowledge of the history, with awareness of rules and laying out standard Track. The major objective is to provide technical forum to organize competitions with modern approach for developing the skills in Science of track and field events.

1. INTRODUCTION:
   - Knowledge about track & field equipment, Preparatory of field and track

2. HISTORY OF TRACK & FIELD:
   - Historical & Present status of IAAF, its constitution and relevant information, Kids Athletics

3. HISTORICAL REGION OF COMPETITION:
   - An account of historical region of competition,
     - Preparation facilities
     - Condition
     - Officials duties
     - Rules of conduct of events.

4. BRIEF ACCOUNT OF TRAINING RELEVANT TO TRACK & FIELD EVENTS.

Practical:

Introduction:

Individual performance, coaching, judging / officiating and program planning in the following events.
Track events: (Sprints & Long Distance Running Events)

INTRODUCTION OF BASIC TECHNIQUES & SKILLS:
   - Start (Position at Block)
   - Body Position-strides (during different Phases of race)
   - Finishing Technique

Throws Events:

INTRODUCTION OF BASIC TECHNIQUES & SKILLS:
   - Stance
   - Grip
   - Styles of Throwing

Jumps Events:

INTRODUCTION OF BASIC TECHNIQUES & SKILLS:
   - Start
   - Body Position (during different Phases of jump)
Finishing Technique

Course No. HPED-416

Books Recommended:

SKILLS & TECHNIQUES OF SPORTS & GAMES (2+1)
Course No. HPED-418

BS-HPED (2nd Year)
2nd Semester

Objective:
Origin & historical background, skill, technique, equipment, (Players and playing equipments), rules of the games, playing courts and fields, officials and their duties, penalties, rules of the conduct and recent developments relevant to the following games:

- Soft Ball, Basket Ball, Net Ball, Hand Ball,

Practical:

- Individual performance, coaching, judging/Officiating and program planning

Books Recommended:

3. Dr. Anil Sharma, O.P Sharma, The Illustrated Encyclopedia of Rules in Sport & Games, Sports Publication, (2004). New Delhi,